Universal or gender-specific? Exploring military leadership from a subordinate perspective

A proposal

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Abstract

Leadership is key to the successful functioning of any organization, including the military. Contemporary conceptualizations of leadership have focused on the behaviours or traits necessary for leaders to function effectively. However, leadership is a dynamic process involving both a leader and a follower. Thus, recent theories have taken an information-processing approach to the study of leadership, centring on the perspective of the subordinate. One basic tenet of this approach is that perceivers hold an implicit theory or prototype of leadership; before ascribing leadership, subordinates look to congruence between their beliefs regarding the traits or behaviours that constitute effective leadership and the actual behaviour of an individual. Integrating literature on the encoding process, stereotyping, and gender and leadership with the information-processing approach to leadership, this proposal reviews some key theoretical perspectives and outlines a program of research designed to assess perceptions of military leadership from a subordinate point of view. Also discussed is how these perceptions may differ for male and female leaders as well as leaders of different rank (i.e., officers and non-commisioned members [NCMs]).

Résumé

Le leadership est essentiel au bon fonctionnement de toute organisation, y compris les organisations militaires. Les principes contemporains de conceptualisation du leadership se sont toujours axés sur la détermination des comportements ou des traits nécessaires à un leader efficace. Toutefois, le leadership constitue un processus dynamique auquel participent à la fois le leader et le subordonné. Des théories récemment avancées ont misé sur le traitement de l'information pour étudier le concept du leadership, en se concentrant sur la perspective du subordonné. Un des principes de base de cette approche est que les percepteurs cautionnent implicitement une théorie ou un modèle de leadership. En fait, les subordonnés cherchent à établir une concordance entre leur opinion sur ce qui constitue les traits ou les comportements d'un leader efficace et le comportement réel d'une personne avant d'imputer le leadership. En intégrant des documents sur le processus d'encodage, les stéréotypes, la question homme-femme et le leadership dans cette approche axée sur le traitement de l'information, la présente proposition passe en revue quelques-unes des principales perspectives théoriques et trace les grandes lignes d'un programme de recherche conçu pour évaluer les perceptions des subordonnés en matière de leadership militaire. Il est aussi question de la façon dont ces perceptions diffèrent selon le grade du leader ou s'il s'agit d'un homme ou d'une femme (officiers et militaires du rang [MR]).

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Executive summary

Effectual leadership is one of the keys to successful military functioning. Currently, however, little is known regarding subordinate perceptions of effective leader behaviour in the military. This proposal reviews key viewpoints regarding leadership prototypes (also referred to as implicit leadership theories), and how they are utilized in forming perceptions of leaders. Specifically, this proposal expands on the following research areas:

- Early research into the processes that guide subordinate responses to questionnaires assessing leader behavioural styles determined that even when individuals rated a fictitious leader, the factor structure of the scales was consistent with the results found during scale development (e.g., Eden and Leviatan [1] Weiss and Adler [2]). Participants' responses could not have been guided by actual leader behaviour because they were not rating a real leader. Such findings initiated the interest in implicit theories of leadership.

- Guided by early work on object categorization and the process of categorizing people in the environment (e.g., Cantor and Mischel [3]; Rosch [4]), Lord and his colleagues (e.g., Lord et al [5]) began to develop the content of perceivers' leader prototypes, a process continued by Offermann et al. [6]. However, the generated prototypes referred largely to general business leadership and, as yet, it is unclear how fully these models will generalize to military leadership. Later theory focused on the means through which these prototypes guide information processing and aid individuals in the process of leader categorization (e.g., Lord and Maher [7]).

- Lord and Maher [7] detail two processes through which individuals classify leaders: inferential and recognition-based processes, the latter of which are the focus of this proposal. In recognition-based processing individuals must first recognize and encode exhibited leader behaviours as traits and then match the encoded traits to the pre-existing leader prototype. Although implicit in the model, only recently have researchers begun to investigate the encoding processes involved in leadership categorization.

- The process of encoding involves transforming information into mental representations, and researchers investigating the process of spontaneous trait inferences have determined that individuals do encode traits when presented with the corresponding behaviour rather than remembering the specific behaviour itself (e.g., von Hippel et al. [8]; Winter and Uleman [9]). An application of this process to leadership has determined that individuals do encode leader traits when presented with the corresponding behaviours [10].

- While it initially appears as though leader traits are encoded from the corresponding leader behaviour, the processes involved in leader perceptions are more complicated than those involved in making simple trait perceptions. Specifically, perceivers also look to contextual information when forming impressions of leaders (e.g., Lord and Brown [11]). Gender is one salient piece of contextual information available to

subordinates (especially in the military) and extensive literature has detailed the persistent gender bias in leadership both in the military and other organizational settings. Thus, it is possible, and even likely, that leader gender will impact the process of encoding. Subsequent studies by Scott et al. confirmed this prediction; specifically, participants had difficulty encoding agentic leadership behaviours exhibited by a female.

- Based on the literature review, a series of studies is proposed aimed at developing a prototype for military leadership and gauging whether any evident differences exist in the content of the prototype for officers and non-commisioned members (NCMs). Further studies are proposed to assess whether an encoding bias exists for female leaders. These studies will determine if perceivers encode leadership traits differently from the behaviour of male and female leaders.

- Finally a process is suggested through which leaders may influence the subordinate, namely by activating the subordinate self-concept (e.g., Lord and Brown [11]). Recent leadership scholars have begun to focus on how a leader may make salient relevant components of the subordinate self-concept, thereby eliciting the desired behaviour.

In sum, this proposal is intended to advance theory that focuses on the role that subordinates play in determining effective military leadership within a gendered context, and to suggest a research plan for investigating this role.

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Sommaire

Il est très important d'avoir un leadership efficace afin d'assurer le bon déroulement des opérations militaires. Actuellement, toutefois, on connaît très peu les perceptions des subordonnés à l'égard des qualités d'un leader efficace dans les forces armées. La présente proposition porte sur les principaux points de vue concernant les modèles de leadership[1] et sur la façon dont ils servent à former les perceptions sur les leaders. Plus particulièrement, cette proposition traite des domaines de recherche suivants :

- Une recherche préliminaire sur les processus influençant les réponses des subordonnés dans les questionnaires d'évaluation des styles de comportement des leaders a permis de déterminer que, même lorsque des personnes évaluent un leader fictif, la structure factorielle des échelles est conforme aux résultats obtenus durant l'élaboration des échelles (Eden et Leviatan [1]; Weiss et Adler [2]). Les participants ne pouvaient pas avoir été guidés par le comportement réel d'un leader parce qu'ils n'évaluaient pas un leader réel. Cette constatation a amené les intervenants à s'intéresser aux théories implicites du leadership.

- À la lumière de travaux préliminaires réalisés sur la catégorisation d'objets et le processus de catégorisation de personnes dans leur environnement (Cantor et Mischel [3]; Rosch [4]) Lord et ses collègues (Lord et al. [5]) ont entrepris d'élaborer le contenu de prototypes de leaders à l'intention des subordonnés, travail qui a été poursuivi par Offermann et al. [6]. Cependant, les prototypes produits se fondaient en grande partie sur le leadership dans le monde des affaires en général et, à ce jour, on ne sait pas si ces modèles peuvent vraiment s'appliquer au leadership militaire. Une théorie avancée par la suite traitait de la façon dont ces prototypes guidaient le traitement de l'information et aidaient les personnes à catégoriser les leaders (Lord et Maher [7]).

- Lord et Maher [7] décrivent deux processus de classement des leaders : le processus inférentiel et le processus fondé sur la reconnaissance. C'est sur ce dernier processus que porte principalement la présente proposition. Selon le processus fondé sur la reconnaissance, les personnes doivent d'abord reconnaître et encoder les comportements du leader en tant que traits et ensuite associer ces traits encodés au prototype de leader préexistant. Bien que les processus d'encodage mis en cause pour catégoriser le leadership soient implicites dans le modèle, ce n'est que récemment que les chercheurs ont commencé à les étudier.

- Le processus d'encodage comporte la transformation de l'information en des représentations mentales. Les chercheurs qui ont étudié le processus d'inférence spontanée des traits ont déterminé que les personnes encodent des traits lorsqu'elles observent le comportement correspondant plutôt qu'en se remémorant un comportement précis (von Hippel et al. [8]; Winter et Uleman [9]). En fait, une application de ce processus au leadership a permis d'établir que les personnes

[1] On parle également de théories de leadership implicites.

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encodent les traits de leaders lorsqu'elles sont en présence de comportements correspondants [10].

- Bien qu'il semble, à prime abord, que les traits des leaders soient encodés d'après le comportement du leader correspondant, les processus intervenant dans la perception des leaders sont plus complexes que ceux associés à la simple perception des traits. Plus particulièrement, les percepteurs se fient en outre à de l'information contextuelle lorsqu'ils se forment une impression sur les leaders (Lord et Brown [11]). Le sexe d'une personne constitue un élément important d'information contextuelle pour les subordonnés (particulièrement dans les forces armées), et de la documentation exhaustive a fait état du sexisme tenace qui prévaut en matière de leadership tant dans les forces armées que dans les autres organisations. Il donc possible, et même probable, que le sexe du leader influence le processus d'encodage. Des études ultérieures menées par Scott et al. ont permis de confirmer cette hypothèse. En fait, les participants avaient de la difficulté à encoder le comportement d'un leader lorsqu'il s'agissait d'une femme.

- En se fondant sur l'analyse documentaire, une série d'études sont proposées en vue d'élaborer un prototype de leadership militaire et d'évaluer s'il existe chez les officiers et les militaries du rang (MR) des différences évidentes en ce qui concerne le contenu du prototype. On propose d'entreprendre d'autres études afin d'établir s'il y a partialité de l'encodage en ce qui touche les leaders féminins. Ces études permettront de déterminer si les subordonnés encodent les traits de leadership différemment selon qu'il s'agisse du comportement d'un leader masculin ou féminin.

- Enfin, on suggère un processus permettant aux leaders d'influencer leurs subordonnés en faisant appel à leur concept de soi (Lord et Brown [11]). Récemment, des chercheurs dans le domaine du leadership se sont penchés sur la façon dont les leaders pouvaient miser sur des composantes pertinentes du concept de soi chez leurs subordonnés afin d'obtenir le comportement souhaité.

Somme toute, la présente proposition vise à exposer une théorie sur le rôle des subordonnés dans la détermination d'un leadership militaire efficace et à suggérer un plan de recherche afin d'approfondir ce rôle.

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Some of the ideas presented here can also be found in Scott and Brown [10]. *Female first, leader second? Differing perceptions of male and female leadership behaviour*. Additional ideas are further developed in Kristyn Scott's dissertation, in progress at the University of Waterloo.

Overview

Effective leadership is one of the keys to successful military functioning; a successful, commanding leadership presence presumably contributes to a host of positive outcomes, including success on the battlefield. Given the importance of leadership, especially in the military, it is imperative to explicate the processes through which individuals are afforded leadership. Moreover, the military is one of the most stereotypically masculine occupations one can choose. Thus, it is also of great importance to understand the interplay between leadership and gender in a military setting.

As noted by Lord and Brown [11], traditionally, much of the extant leadership literature has emphasized a leader-centred approach to leadership. That is, past research has emphasized the behaviours or traits necessary for leaders to be effective (e.g., Bass [12]; Fiedler [13]; Judge and Bono [14]), while comparatively little attention has been paid to subordinate perceptions of leader behaviour. However, recent conceptualizations of leadership have focused on the follower as an integral force in determining the qualities necessary for leaders to be perceived as effective (e.g., Lord et al. [5]). For example, Lord et al. [5] theorized that all individuals have a conceptualization or implicit prototype of the traits that constitute effective leadership; in a sense, leadership is truly in the eye of the beholder. Thus, leader behaviour is not the sole determinant of leadership. Rather, leadership is an interactive process between leaders and subordinates; a leader exhibiting behaviours congruent with subordinate leader prototypes will likely be more influential than one exhibiting incongruent behaviours. From this perspective, subordinate perceptions play an important role in the leadership process and leadership is bestowed upon an individual based on a match between subordinates' beliefs about leadership and exhibited leader behaviours.

Recent empirical work has determined the content of leader prototypes or implicit leadership theories (ILTs). However, the content of these prototypes refer to general leadership behaviour rather than behaviour specific to various types of leaders. Moreover, recent discussions of military leadership have focused on the competencies necessary for proficient leadership, though the focus is on what the leader should do, rather than on subordinate perceptions. For example, Yukl [15] suggests there are specific skills (e.g., knowledge of tactics), personality traits (e.g., integrity, physical stamina), and behaviours (e.g., communicating clear objectives) that are requisites for military leaders. However, from a subordinate perspective, the traits that constitute effective leadership in a military setting have yet to be fully elucidated.[2] Moreover, it is not known whether perceivers will identify these traits as being universal across all levels of military leadership, for all elements (navy, air, land) or for both males and females. Thus, one objective of the present proposal is to outline a program of research designed to determine the traits that subordinates deem characteristic of leadership in a military setting. A secondary focus of the research is to ascertain whether the

[2] Although the academic literature has yet to examine the content of a military leader prototype, there does exist some initial work attempting to define the behaviours necessary for junior officers to be effective [16]. The purpose of this work was to use the identified behaviours to develop criteria for officer selection. Eighteen behaviours were identified including self-confidence, physical fitness, and leading by example.

structure of the prototype is similar for male and female leaders. By extension, if a discrepancy is evident, this could have profound implications for the function and effectiveness of female military leaders in the future. Thus, the purpose of this proposal is to review existing literature and detail a methodology for future studies in an attempt to clearly explicate the role that leader prototypes play in determining successful military leadership. I will first review the early studies on implicit leadership theories and then turn to a discussion of leader prototypes, both in terms of content and how they guide information processing. Next, I will discuss encoding as an important component of leadership perceptions, and how this process may be impeded by pre-existing stereotypes (specifically gender stereotypes) on the part of the perceiver. Finally, I will propose a series of studies that begin to look at an implicit prototype of effective military leadership. In exploring the content of this prototype, factor structure as it pertains to rank and gender will also be examined.

Implicit leadership theories

Behavioural approaches to the study of leadership popularized the use of questionnaires to measure leadership; prominent examples include the Leader Behaviour Description Questionnaire (LBDQ; e.g., Schriesheim and Stogdill [17]) and the Multifactor Leadership Questionnaire (MLQ; e.g., Bass and Avolio [18]). This method of assessing leadership involves having subordinates rate their leader's behaviour using these measures with higher scores presuming more effective leadership. However, researchers have demonstrated that the factor structure of these behavioural measures (specifically the LBDQ) is remarkably stable in the absence of a real leader. That is, researchers have established that participants are able to provide reliable estimations of leader behaviour without actually being exposed to a leader (e.g., Eden and Leviatan [1]; Weiss and Adler [2]). This program of research raised questions about the interpretations of questionnaire measures (e.g., Phillips and Lord [19]) and gave way to the notion of Implicit Leadership Theory (ILTs), the idea being that individuals have a pre-existing notion of the traits that constitute effective leadership (e.g., Eden and Leviatan [1]; Lord et al. [5]; Weiss and Adler [2]).

Intrigued by the research examining implicit personality theory (cf., Schneider, [20]), Eden and Leviatan [1] began to explore the idea that the same processes affecting personality ratings may also affect leadership ratings. To test this theory, leadership scales from the *Survey of Organizations* [21] were administered to participants with the instructions that they were to use the scales to rate an unknown organization. Participants were not provided with information about any of the supervisors at this fictitious organization and they were given only limited information about the organization itself. The researchers found that regardless of participants' work experience, the factor structure of the scales was reliably replicated. That is, Eden and Leviatan found that, despite using a sample of students who had no information about the supervisor they were supposed to be rating, the questionnaire had the same underlying factor structure as in the original studies that used an applied sample. Moreover, the factor structure was replicated even when participants who claimed to have filled out the questionnaire at random were included in the analyses. Thus, their results suggest that individuals do have implicit ideas regarding the traits that constitute effective leadership.

Several researchers have replicated the initial results found by Eden and Leviatan [1]. For example, Weiss and Adler [2] sought to extend these results by including a possible

moderator, namely cognitive complexity. They suggested that the results obtained by Eden and Leviatan [1] could be affected by the prior work history of the participants and could reflect regularities in leadership behaviour rather than implicit theories alone. Thus, Weiss and Adler used an individual difference measure to classify participants into groups based on cognitive complexity (low vs. high). They theorized that if the results of previous work do reflect regular patterns of leader behaviour, then cognitive complexity should not moderate the results. Using the *Survey of Organizations* leadership scales, they found no effect of cognitive complexity: the obtained factor structure again replicated evidence found using field samples whereby participants rated actual leaders. Thus, they suggested that while individuals may hold implicit theories regarding leader behaviour, these theories may reflect expectations of actual leader behaviour.

Rush, Thomas, and Lord [22] took a slightly different approach to the paradigm and provided participants with information regarding a leaders' performance. Participants were either told that the department for which the leader was responsible performed poorly or performed well and then rated the leader using the LBDQ. Their results showed that, despite the omission of individual leader behaviours from the description of the leader, the factor structure of the Initiating Structure and Consideration subscales was largely similar to that obtained using field data. Using a similar procedure, Bryman [23] replicated the Rush et al. study and found that the factor structure for the LBDQ was extremely similar to that obtained by Rush et al.

Together, the studies presented here, along with subsequent studies (e.g., Phillips & Lord [19]; Phillips & Lord [24]), clearly demonstrate that perceivers have specific expectations regarding the traits and behaviours that comprise effective leadership; individuals asked to rate a fictitious, unknown leader provide the same ratings as individuals asked to rate a real leader. Thus, researchers began to examine both the content of these implicit theories and the processes through which said theories might guide information processing. Developing a more concrete understanding of how individuals classify leaders will not only aid in clarifying behavioural expectations on the part of followers, but may also provide insight as to why certain leaders are afforded more influence than others and are perceived to be more effective leaders. Thus it is important to illuminate the process of leader categorization.

Leader categorization theory

Categorization theory was proposed as a means by which individuals classify objects based on the features that clearly distinguish them from one another [4]. Thus, based on the existence of similar features, we classify objects into the categories that are most representative. Once objects are determined to fit a given category, further examination may lead to separation into smaller, better-defined categories. The prototypicality of a given feature can be used to guide the categorization process. A prototype is the best exemplar of a category and a prototypical category member would possess the most representative traits or attributes of the category [4]. Thus the process of category formation is based on the existence of prototypical features. However, absence of a prototypical feature does not mean exclusion from a category; the traits used to classify objects are not well defined. Rather, the object lacking the prototypical attribute would simply be a less prototypical member of that category. For example, a robin and a penguin are both birds, however, a robin has feathers and flies, whereas a penguin does not. Thus, a robin is a more prototypical example of the category 'bird' than is a penguin.

The extent to which objects in different categories share the same prototypical attributes depends on the level at which the objects are categorized. Rosch proposed three hierarchical levels at which the features of the objects within them will vary in terms of the extent to which they are representative (or prototypical of) the entire category. The superordinate level is the broadest and most inclusive level encompassing entire categories of objects (e.g., mammals). Further, members of a given superordinate category should share little in common with members of other superordinate categories. At the basic level, the objects in each category share more prototypical features (e.g., dogs). At the subordinate level the basic level categories are differentiated further and the majority of identifiable features (i.e., prototypical attributes) in one subordinate level category are shared within that category (e.g., golden retriever). While initially proposed for the classification of objects, categorization theory has also been extended to categorize people in the environment (e.g., Cantor and Mischel [3]) and the categorization of leader behaviour (e.g., Lord et al. [5]).

As evidenced by the discussion of implicit leadership theories, people hold ideas regarding the traits and behaviours of effective leaders (e.g., Phillips and Lord [19]). In an application of Rosch's categorization theory, Lord and his colleagues proposed an information processing approach to the study of leadership, focusing on the subordinate. Specifically, drawing on Rosch's categorization theory they suggested that there exists a set of traits that distinguish leaders from non-leaders, and that perceivers ascribe leadership based on the presence (or absence) of these traits. That is, they proposed that perceivers categorize leaders based on a leader prototype, which contains the traits most representative of leadership. Further, this prototype is differentiated at different levels of categorization. At the superordinate level leaders are proposed to differ from non-leaders. At the basic level, Lord et al. [5] proposed the existence of 11 different categories of leader (e.g., business, political, military and religious leaders) based on a content analysis of references to leadership in the popular press. Finally, the subordinate level differentiates leaders based on defining characteristics (e.g., navy vs. marines). Again, it is important to note that the precise content of these prototypes is ill defined; the absence of a particular trait does not necessarily mean that an individual will fail to be classified as a leader. However, the individual will be a less prototypical leader.

Recent studies have attempted to verify the content of the leader prototype. In one of the most comprehensive studies of the content of the leader prototype, Offermann et al. [6] collected data from both students and samples of working adults to determine the content of a general implicit prototype. In five studies they determined the structure of a general leader prototype to be composed of eight separate factors, namely sensitivity, dedication, tyranny, charisma, attractiveness, masculinity, intelligence and strength.[3]

Although, to date, little empirical work has examined the structure of the leader prototype in terms of more specific types of leaders (i.e., political leaders, military leaders, principals, etc.), one caveat to this is the work of Baumgardner et al. [25]. These authors have established some of the traits that perceivers believe indicative of military leadership in the larger context of establishing differences in leader categorization between novices and experts. A secondary focus of this research was to establish the most appropriate level of distinction between basic level categories (context vs. hierarchical level). Baumgardner et al. [25] had participants

[3] In the Offermann et al. [6] study the factor 'strength' refers to the traits strong and bold and tyranny was negatively correlated with leadership.

generate traits for leaders at several basic level categories (e.g., business, religion, sports, and military). Relevant to this proposal are the traits generated for military leaders in the context of their study. Although not an exhaustive list, some of the traits included 'intelligent,' 'tactful,' 'powerful,' and 'healthy'. Thus, their work presents a starting point for the development of a prototype specific to military leadership, although a more rigorous analysis is warranted.

Other studies have focused on more general prototypes. For example, Kenney and his colleagues have recently developed prototypes for new leaders and for leaders worthy of influence (e.g., Kenney et al. [26]; Kenney et al. [27]). For example, new leaders should be kind, responsible, and ambitious, while leaders worthy of influence should be active, truthful, and influential. Further, attempts have been made to assess the stability of leader prototypes cross-culturally. For example, Den Hartog et al. [28] investigated leader prototypes across cultures as part of the Global Leadership and Organizational Behaviour Effectiveness (GLOBE) studies. They found that implicit theories regarding effective behaviour existed in all of the cultures they surveyed. However, while some traits were seen as universally positive and indicative of leadership/effective leadership (e.g., decisive, positive, just and intelligent) and others universally negative (e.g., ruthless and egocentric), a number of traits were identified that differed across cultures. That is, the researchers discovered many traits that were indicative of leadership in some cultures, but not others. For example, some of the traits that varied across cultures included sincerity, evasiveness, cunningness, sensitivity, and enthusiasm. Thus, while there is evidence that leader prototypes are universal to a certain extent, the content is also shaped by cultural influences.

Gerstner and Day [29] investigated perceptions of leaders cross-culturally in terms of the results of Lord et al. [5]. Specifically, they had participants from nine countries (including the United States) indicate how indicative each of the traits obtained in Lord et al. [5] were in terms of general business leaders. Their results demonstrated that none of the top five traits identified by participants in any country appeared in all lists. For example, 'honesty' was deemed the most prototypical trait of business leaders in Honduras, while 'discipline' was the trait most prototypical of Japanese leaders. However, grouping the countries further (Western countries vs. Eastern countries) revealed some commonalities. For example, 'intelligence' was seen as prototypical of leaders in Eastern countries, while the trait 'determined' was rated as highly prototypical of leaders in Western countries. Thus, while some common perceptions do exist, the results of Gerstner and Day [29] and Den Hartog et al. [28] suggest that, generally, cross-cultural perceptions of leaders are quite divergent.

Although research has focused on elucidating the content of leader prototypes, the prototype can only be clearly applied to general business leaders. The current empirical investigations of the content of leader prototypes largely explore only the superordinate category of 'leader' or the basic level category of 'business leader' (operationalized as 'supervisor'; [5, 6]). While there are sure to be some similarities between the superordinate category of 'leader' and the basic level category of 'military leader' as well as between 'business leader' and 'military leader,' without further examination, it is not possible to generalize the existing prototypes to military leadership. Why might it be important to develop a clear understanding of the traits that perceivers believe are indicative of military leaders? The military is a rather unique institution in regards to leadership; leaders are often very young, relatively inexperienced and may be placed in situations where they are responsible for the lives of their subordinates.

Thus, the development of a clear understanding of subordinate beliefs and expectations regarding leadership is imperative. Congruence between subordinate perceptions and leader behaviour may serve to aid even the most junior leaders become superior leaders.

While evidence of a leader prototype exists, it is also necessary to understand *how* perceivers classify individuals as leaders. That is, what are the processes through which perceivers label an individual a 'leader'? Lord and Maher [7] suggest that there exist two ways through which perceptions of leadership can be realized. The first process through which perceivers can understand leadership is through inferential processing. Individuals processing information inferentially make use of contextual information to determine leadership; perceivers utilize salient organizational information, such as performance outcomes, to ascribe leadership. That is, through attributional analyses, perceivers determine responsibility for outcomes and, based on the attributions drawn, leadership judgments are formed. Thus, the more responsibility a leader bears for a positive/negative outcome, the more/less leadership will be attributed to that leader.

Substantial evidence exists to suggest that perceivers do, in fact, ascribe leadership using inferential processes; group performance has a demonstrated relationship to leadership perceptions. For example, using a performance cue paradigm, researchers have shown that group performance influences leadership ratings, independent of any prototypical information provided to the perceiver (e.g., Gioia and Sims [30]; Larson [31]; Lord et al. [32]; Rush et al. [22]). For example, in a typical study, participants view a videotape of a group interacting and are asked to then rate the leader. Regardless of when the performance information is presented (before or after viewing the group process), participants who are told that the group performed well, rate the leader of that group significantly higher on measures of leadership compared to the leader of a poorly performing group. Extrapolating these findings to the upper hierarchy of the organisation, Meindl and his colleagues (e.g., Meindl et al. [33]) have noted that when an organisation performs exceptionally well, the credit almost always goes to the CEO and, by extension, the outstanding leadership that he or she must have exhibited for such an outcome to occur.

Recognition-based processes are the other means by which perceivers ascribe leadership. In contrast to inferential processes, recognition-based processes are formed based on the pre-existing knowledge structures of the perceiver. That is, perceivers use their leader prototypes to guide perceptions of leadership [7]. Indeed, studies have confirmed that leadership ratings are dependent on the extent to which exhibited leader behaviour can be matched to the prototype of the perceiver (e.g., Cronshaw and Lord [34]; Lord et al. [5]; Maurer and Lord [35]). For example, Lord et al. [5] created a series of vignettes, manipulating the prototypicality of the leadership behaviours exhibited by the manager (a fictitious 'John Perry') in the scenario (i.e., very prototypical, neutral and anti-prototypical of leaders). They found a very strong effect of prototypicality on leadership ratings, such that participants exposed to the prototypical manager judged him to be significantly more leader-like compared to the neutral and anti-prototypical condition. Further, leadership categorization has been demonstrated as a mediator in the relationship between leadership perceptions and dependent variables such as initiating structure ratings [36].

Cronshaw and Lord [34] also found that the encoding of leadership behaviours plays an important role in perceptions of leadership. They exposed participants to a videotape of a

group interaction in which the focal person (i.e., the leader) varied in the extent to which he exhibited prototypical and anti-prototypical behaviours. They had participants press a button every time they observed a prototypical behaviour and used this as a measure of encoding. Results demonstrated that the greater the number of encoded behaviours participants indicated, the higher the target individual was rated in terms of leadership.

Thus, results of prior empirical work do suggest that encoding plays an important role in the perception of leaders. However, little research has been conducted examining the *process* of encoding in terms of leadership. Cronshaw and Lord [34] used judgments of meaningful behaviour as an indication of encoding and Phillips and Lord [19] determined that participants were using the process of leader categorization to guide their perceptions of leadership. However, it is unclear exactly *how* participants were encoding the relevant traits and *what* information they were encoding. Thus, although these results suggest that perceivers are encoding leadership traits, the process through which this occurs is largely unclear.

The encoding process

Broadly speaking, encoding is the process of transforming environmental information and storing it as a mental representation [8]. Although not specific to the leadership literature, researchers have established that, rather than remembering specific behavioural instances, people encode and remember traits implied by behaviour through the process of making spontaneous trait inferences (STIs; e.g., Winter and Uleman [9]; Van Overwalle et al. [37]). In general, the STI literature suggests that the observation of a given behaviour will lead the perceiver to make a judgement about the traits implied by the behaviour. Thus, rather than remembering and encoding the actual behaviour, perceivers encode the trait that is implied by the behaviour. For example, being given the sentence 'Marc returned the lost wallet with all the money in it' would lead to the encoding of the implied behavioural trait, namely 'honest' [37]. Not only is the encoding of traits an elemental component of impression formation, but it also occurs in the absence of impression formation goals [38, 9]. That is, as the name implies, the process of encoding traits is spontaneous and perceivers will encode traits independent of any explicit instruction to do so.

In one of the initial studies examining STIs, Winter and Uleman [9] first presented participants with a series of sentences one at a time. Participants were then asked to recall the sentences and, to facilitate recall, were presented with a dispositional cue (i.e., one related to the trait), a semantic cue, or no cue. Their results demonstrated that recall was superior when participants were presented with the dispositional cues. Thus, their results suggested that participants were making dispositional inferences about the personality traits of the actors in the sentence and using those traits to guide their information processing. Numerous studies have examined STIs, largely drawing the same conclusions (e.g., Uleman et al. [39]; Uleman and Moskowitz [40]; Van Overwalle et al. [37]). That is, these studies suggest that perceivers encode traits implied by behaviour.

More recent work also indicates that when encoding traits, people are not simply making judgments regarding behaviour, but also judgements about the actor engaging in the behaviour. Further, Van Overwalle et al. [37] suggest that not only is the STI formed when the behaviour is encoded, but it also generalizes to the actor. That is, the trait is encoded from

the presented behaviour, and is used to describe the actor. Van Overwalle et al. [37] presented participants with sentences and a subsequent probe word. However, in between the presentation of the sentence and the probe word, participants were primed using either the name of the actor in the sentence, a trait word implied by the sentence, or a control word. Participants were required to identify whether the presented word was present in the sentence. They found that participants were significantly more likely to indicate that the probe word was present in the sentence (i.e., to make an incorrect response) when primed with either the trait word or the name of the actor. Thus, their results indicate that not only is the STI formed when the trait is encoded, but that it will also generalize to the actor. Returning to the earlier example, 'Marc returned the lost wallet with all the money in it,' not only is the trait 'honest' encoded and used to describe the actor, but its accessibility is also increased, such that seeing the individual for a second time may trigger automatic recall of the trait [9]. It is important to note that these inferences are made without conscious awareness, thus potentially colouring impressions because the perceiver is not aware of the process [39].

As previously noted, the literature on STIs and encoding is not specific to leadership, however the process of encoding is implicit in the process of leader categorization. In an attempt to more clearly elucidate the process through which subordinates may encode the traits underlying leader behaviour, Lord and Brown ([11]; see also Lord et al. [41]) apply a connectionist framework to the process. Specifically, they argue that when subordinates are observing and encoding leader behaviour, they consider contextual/environmental and behavioural information simultaneously. Thus, not only is the actual behaviour exhibited by the leader important, but so too is the contextual information that occurs simultaneously with the behaviour; both pieces of information are important for the subordinate interpretation of leader behaviour. To the extent that the pieces of information (e.g., behaviour and context) are congruent, the relevant knowledge structures (traits) will be more strongly activated. Conversely, incongruent information will inhibit the activation of the relevant knowledge structures (i.e., traits; Lord and Brown [11]). For leaders to be effective it is crucial that perceivers recognize and encode the behaviours they exhibit as traits consistent with the underlying leader prototype.

As evidenced, the social cognition literature suggests that the STI process is pervasive and automatic. Although the initial work on STIs was not discussed specifically in terms of leadership, researchers have begun to theorize about the processes through which perceivers encode leadership behaviours [11]. In an initial study, Scott and Brown [10] established that people do encode leadership traits when presented with behaviours that underlie the leader prototype (Pilot 1b). Specifically, Scott and Brown presented participants with a series of sentences all designed to tap into aspects of the leader prototype. Following the presentation of each sentence, participants were required to make a lexical decision (a word/non-word decision). All participants saw each sentence followed by the trait-implying word, a control word and a non-word. Compared to control words, participants were significantly faster at indicating that the trait words were, in fact, words. Thus, their results provide initial evidence supporting the idea that traits are spontaneously encoded from the corresponding behaviour, corroborating the first stage of leader categorization theory – the encoding phase [5].

Clearly, it is important that subordinates recognize the intended behaviours of military leaders. Failing to recognize and encode the relevant behaviours could have potentially serious consequences when the directives issued by the leader are not correctly encoded.

Thus, although it is plausible to assume that the behaviours exhibited by military leaders will be encoded as traits, given the extensive literature supporting the existence of trait inferences, there are many contextual factors that must be considered. As discussed by Lord and Brown [11], contextual factors play an important role in the perception of leadership. Thinking in terms of military leadership, numerous environmental factors could influence perceptions of behaviour. For example, there may be differences in perceptions of leadership when in garrison as compared to a field situation. Further, differences in rank, experience, element, and trade may all influence the way leadership is encoded. However, perhaps one of the more salient, and relevant, contextual factors to consider is leader gender. Not only is gender extremely salient, but there also exist strong gender norms and stereotypes, some of which are not only contrary to beliefs about leadership, but are also in extreme opposition to military stereotypes. Indeed, a vast body of literature has established the barriers that females encounter in attaining positions of leadership. Thus it is important to elucidate the theoretical explanations for this barrier before discussing how gender stereotypes may hinder the process of encoding.

Gender and leadership

Likely one of the easiest ways to present the literature examining the gender difference in leadership is to characterize the results as mixed. For example, Dobbins and Platz [42] conducted a meta-analysis on ratings of male and female leaders (excluding self-ratings) and concluded that the gender difference typically found in studies examining leadership effectiveness and gender (i.e., male leaders are more effective than female leaders) only held for laboratory studies. That is, in when field samples were used, subordinates were equally satisfied with the leadership of males and females. Thus, Dobbins and Platz suggested an end to laboratory research examining the gender bias in leadership. However, in a series of meta-analyses, Eagly and her colleagues (e.g., Eagly and Johnson [43]; Eagly and Karau [44]; Eagly et al. [45]; Eagly et al. [46]) suggest that despite no difference/extremely small differences in effect size, there do exist gender differences in leadership emergence, effectiveness, evaluation, and style. Moreover, males are seen as being more similar to leaders, a finding that has persisted across time and cultures (e.g., Brenner et al. [47]; Heilman et al. [48]; Powell and Butterfield [49, 50]; Powell et al. [51]; Schein [52, 53, 54]). Thus, on one hand, there appears to be no gender difference except in laboratory research, and on the other, there appears to exist a clear perceptual difference between the characteristics of leaders and those of females.

Examining the statistics comparing male and female leaders tells yet another story. For example, Canadian statistics show that despite a 40% increase of females in managerial positions over the past seven years, males still outnumber females by a margin of two-to-one [55]. Thus, despite conflicting evidence in the academic literature, it is clear that females are still underrepresented in positions of leadership, especially at the upper echelons of the organization.

The presence of females in roles of military leadership is also limited. For example, in the Canadian military, 14.1% of officers and 11.9% of non-commissioned members are female. Further, as discussed at the Conference for the Committee on Women in NATO Forces held in Ottawa, June 2003, no female currently holds a rank higher than Brigadier-General in the

Air Force, Colonel in the Army or Captain (N) in the Navy. This is similar to the gender composition of the United States military, where less than 2% of female officers hold a rank of Brigadier General and Rear Admiral or higher [56]. Moreover, academic literature examining leadership in the military suggests that males are perceived to have more leadership ability than females. For example, Rice et al. [57], examined gender differences in leadership ability among cadets at West Point. They determined that males were perceived to have more leadership ability than females, although it is important to note that their data were collected during the first year of coeducation at West Point. Further study of the West Point graduates demonstrated that when males rate their own ability as leaders they perceive themselves to be significantly more effective than females perceive themselves to be [58]. Moreover, females (compared to males) perceive their relationship with their superior to be less positive and are less satisfied with their adjustment to the role of Army officer. Despite the approximately 20 years since the initial integration of females in United States military academies, the perceptual divide in terms of leadership perceptions still exists. Boldry et al. [59], evaluated perceptions of male and female cadets at Texas A & M University and found that both the ideal and typical female cadet was rated lower than the ideal and typical male cadet on motivation, leadership, and masculinity. Further, they found no influence of rater sex. That is, males and females both had the same perceptions of male and female cadets. Additional analyses demonstrated that although there were no significant differences between male and female cadets on self-ratings of motivation and leadership, female cadets (compared to male cadets) were rated lower by their classmates on motivation, leadership, and masculinity. Moreover, while perceptions of females were more favourable in integrated units, gender typing was also stronger in integrated units; female cadets were considered more feminine. Interestingly however, there were no obtained differences between male and female cadets on objective measures of performance (i.e., GPA and physical training scores). Thus, it appears that gender stereotypes still guide perceptions of military leadership.

Both the statistics and academic literature demonstrate that difficulty still exists for females in general positions of leadership as well as military leadership positions. Moreover, this disparity exists despite lawmakers' efforts to expand legislation to ensure that males and females have equal opportunity to enter all occupations and status levels. Why then does the gender gap still exist? Several theories suggest that persistent beliefs about the characteristics of males and females are at least partially to blame. Thus, the purpose of the next section is to detail the specifics of these theories.

Comprised of both descriptive (beliefs about how males and females behave) and injunctive (beliefs about how males and females should behave) norms,[4] gender role norms are both pervasive and rigid (e.g., Eagly [60]). In fact, role congruity theory ([61]; based on social role theory e.g., Eagly [60]; Eagly et al. [62]) suggests that persistent beliefs about gender role norms or stereotypes are at the root of the bias against female leaders (and against females aspiring to positions of leadership; e.g., Eagly and Karau [61]). In a similar vein, Bem [63] suggests that one explanation for persisting beliefs about the differences between males and females can be attributed to schematic processing. Bem proposes that individuals are socialized to process information schematically, that is, using information based on beliefs about the differences in the behaviour of males and females. Schematic processing allows the

[4] Descriptive and injunctive norms are also referred to as descriptive and prescriptive stereotypes (e.g., Burgess & Borida [64]; Heilman [65]).

perceiver to organize information efficiently in terms of normative male and female behaviour [63].

Evidently, persistent beliefs about gender role behaviour guide the processing of behavioural information to a considerable extent; behaviour consistent with beliefs about appropriate behaviour is much easier to process than behaviour deemed inconsistent. How then, might schematic processing, or role congruity, impact female leaders? Gender role norms state that females are more adept interpersonally; females are *communal*, that is caring, sensitive, and helpful. Males on the other hand, according to gender role norms, are much more assertive; males are *agentic*, that is, ambitious, determined, and competitive. Traditionally, leader roles are also defined by agentic characteristics or traits. Recalling the Offermann et al. [6] study discussed earlier, with the exception of one factor (sensitivity), all of the factors they identified in the course of developing a leader prototype were agentic. Thus, conventional definitions of leadership are much more consistent with beliefs about the normative behaviour of males, compared to beliefs about the normative behaviour of females (e.g., Eagly and Karau [61]); beliefs about leaders are much more consistent with beliefs about males than they are with beliefs about females. Therefore it is plausible to assume that individuals will encounter increasing difficulty when attempting to categorize the behaviour of female leaders because it is more difficult to use pre-existing beliefs as a guide.

The discrepancy between gender stereotypes and perceptions of leaders has been well documented (e.g., Burgess and Borgida [64]; Eagly and Karau [61]; Heilman [65]). Prejudice on the part of the perceiver occurs when there is a perceived discrepancy between gender norms or stereotypes and the behaviours set out by social roles. Gender role beliefs are robust and when activated, females will be viewed as "communal but not very agentic" while males are perceived as "agentic but not very communal" ([61], p. 575). Thus, when perceivers realize there exists a discrepancy between the behaviour set out by the occupation/attempted occupation of a social role (e.g., a leader role) and appropriate gender role behaviour, prejudice will potentially arise. As previously discussed, male gender stereotypes are much more congruent with beliefs about leader behaviour than are female gender stereotypes. Combined with the activation of gender stereotypes, it becomes increasingly probable that female behaviour will be categorized as being very disparate from leader behaviour. The literature examining the gender bias in leadership has demonstrated fairly extensively that males are categorized as leaders, while females are not (e.g., Schein [53]; Heilman et al. [48]). To detail these results more succinctly, Schein (e.g., [52, 53]) had participants rate males, females, and successful middle managers on a variety of traits. Results demonstrated that males were seen to be more similar to managers than were females. Extending the Schein studies, Heilman and her colleagues also had participants rate successful male managers and successful female managers. Their results demonstrated a remarkable similarity to the original Schein studies. However, when females were labeled as 'successful,' this discrepancy disappeared, although females were also rated much more negatively (e.g., bitter, selfish; Heilman et al. [48]). Powell and Butterfield and colleagues have also found similar results [49, 50, 51]. Using the Bem Sex Role Inventory they found a consistent tendency for participants to perceive leadership roles as predominantly masculine.

Recently, the Schein paradigm has been applied to a military setting. Using the 92-item Schein Descriptive Index (e.g., Schein [52, 53]), Boyce and Herd [66] had military officer candidates at the United States Air Force Academy rate males in general, females in general

and successful officers. Their results were remarkably similar to those found by Schein and her colleagues. Specifically they found that there existed a significant resemblance between males and officers but not females and officers. Moreover, female cadets did not perceive a significant difference between females and officers and males and officers. However, contrary to their hypotheses, males with exposure to female leaders did not perceive that successful officers possessed attributes typical of both males and females. Rather, successful officers were perceived as being more similar to males. This suggests that both tenure and exposure to female officers actually increases rather than decreases stereotyping. Additionally, they found that high performing females perceived successful officers as possessing traits commonly ascribed to males as well as females, while both high and low performing males did not perceive any similarity between females and successful officers; they described officers as more similar to males. Interestingly, low performing females viewed successful officers as similar to females but not similar to males.

Taken together, these results also support the second stage of leader categorization theory – the matching phase; participants have difficulty matching beliefs about females with beliefs about leaders (e.g., Lord et al. [5]). However, less clear is whether beliefs about gender roles also impede the encoding process (the first stage of leader categorization theory). Thus, it is important to explore the extent to which leader gender may impede the encoding of leadership traits and subsequent judgment. Moreover, it is important to more fully detail the impact of contextual information on the encoding process. Turning to a discussion of how pre-existing stereotypes influence the encoding process will help to explicate the difficulty that perceivers may have when encoding disparate pieces of information.

Contextual information and the encoding process

The automatic activation of stereotypes has been repeatedly demonstrated (e.g., Devine [67]). Further, trait and stereotype activation are a basic component of social interaction (e.g., Dijksterhuis and van Knippenberg [68]). Exposure to a group for which a stereotype/schema exists increases the likelihood that the stereotype will guide the processing of subsequent information. That is, perceivers often pay less attention to behavioural information when they can use stereotypes to guide the processing of information [8]. Moreover, it is the encoding of the information that is impaired, not the retrieval. Thus, the effect of stereotypes on the encoding process is quite profound (see von Hippel et al. [8] for a detailed review). In this way, it is possible to encode information such that it is compatible with pre-existing beliefs, serving to maintain stereotypes; information is processed according to the content of the stereotype. Although the impact of stereotypes on the encoding process has received little empirical attention, in a series of five studies Wigboldus et al. [69] tested the idea that stereotypes inhibit the encoding process. Specifically, they followed the procedure of Van Overwalle et al . [37]. Participants were presented with a sentence followed by a probe word and asked to judge whether the probe word was present in the sentence. However, some of the sentences were stereotype-consistent (e.g., The skinhead hits the saleswoman) while others were stereotype-inconsistent (e.g., The girl hits the saleswoman). Their results suggested that the process of making STIs was in fact impeded when the behaviours (and traits implied by the behaviours) were inconsistent with stereotypes. That is, their results demonstrated that participants encoded the information presented to them in a manner that facilitated the maintenance of stereotypes.

von Hippel et al. [8] suggest that as experience with a group increases, so does the extent to which stereotypes are activated automatically upon contact. Thus, it is plausible to presume that exposure to a female immediately activates stereotypes about normative female behaviour. If gender stereotypes are activated automatically when exposed to a female leader, it is increasingly unlikely that any exhibited agentic leadership behaviours will be encoded due to the incongruence between contextual factors (i.e., gender) and leader behaviour (agentic); the incongruence thus weakens the encoding process. Thus if gender stereotypes guide encoding they should influence the degree to which leader behaviour is encoded in terms of the underlying content of the leader prototype; less congruity between female stereotypes and leader behaviour should lead to weaker encoding of traits implied by that behaviour.

Scott and Brown [10] tested this idea in two studies using a lexical (word/non-word) decision task. Their results demonstrated that when exposed to a female target, participants found it more difficult to encode agentic leadership traits (compared to communal leadership traits) when presented with the corresponding leadership behaviour (Study 1). Further, when male targets were included, there was no demonstrable difference in the encoding of communal traits; participants did not show any impediment encoding communal leadership traits when presented with the corresponding behaviours of either a male or female target (Study 2). However, the encoding process was significantly impeded when participants were asked to encode agentic leadership traits. Specifically, participants found it significantly more difficult to encode agentic leadership traits (from the corresponding leadership behaviour) when the target was female. These results are consistent with those of Eagly et al. [46] who found that males and females were evaluated equally when they led in a more interpersonal (i.e., communal) style.

Thinking about the impact of gender on the encoding of military leadership traits could lead to even more disparate results than those found in the Scott et al. [10] study. In a sense, the agentic component of the leadership role could be exacerbated by the stereotypes of the military role. That is, traditionally, the military has been a very male-dominated environment, and, despite the increased presence of females, perceptions (or stereotypes) of those in the military are still very masculine [66]. For example, there is a very strong physical fitness component to the military profession, requiring strength beyond which many females are perceived to possess. Thus, female leaders in the military are not only violating gender role norms or stereotypes by virtue of their leadership role, but by their very presence in the military. Thus it is necessary to further understand perceptions of effective military leadership generally, as well as in terms of gender. If the content of a military leader prototype is inconsistent with female gender stereotypes, then it will not only make it increasingly difficult for females to attain leadership positions, but will also serve to undermine their authority.

The proposed research

Each of the proposed studies is designed to answer the main research question. Does there exist a prototype for military leadership and, if so, does it apply differentially to male and female leaders? That is, will different aspects of the leader prototype be encoded differently depending on whether the leader is male or female? This research will address four main issues: (a) whether there exists a prototype of military leadership, (b) the basic factor structure

of the prototype, (c) whether the factor structure differs for non-commissioned members (NCMs) and officers, and (d) whether the relevant traits are encoded differently for male and female leaders. If in fact there are differences in leadership perceptions, then this could have profound implications for female leaders. Extensions to this research could examine whether any evident encoding bias also produces an evident behavioural difference in the subordinate. For example, Scott and Brown [10] examined whether the encoding difficulties found in Study 2 would generalize to a behavioural deficit (Study 3). Specifically they had participants form an impression of an agentic male leader or an agentic female leader and subsequently complete a word search task (ostensibly as a filler task). However, three of the words that participants were asked to find were not in the matrix of letters and the time that participants spent looking for the missing words was used as the dependent variable. Their results demonstrated that, over time, participants exposed to the male leader persevered longer in the search than participants exposed to the female leader. These results could have profound implications if they generalize to military leadership. Not knowing the exact content of a military leader prototype it is difficult to speculate which subordinate behaviours may be impacted. However, using motivation (operationalized as persistence in Scott and Brown [10]) as an example, if female leaders are shown to be less motivating than their male counterparts, this could have dramatic effects on military functioning. The results of the proposed research may also be used to aid in promoting female leadership. If evidence is found suggesting that female stereotypes do impede the encoding of military leadership traits, programs could be developed to work on changing stereotypes of females in the military, or more specifically, of female military leaders.

Developing a leader prototype for the military

The initial studies will focus on developing a clear understanding of the traits that constitute military leadership on the part of the perceiver. That is, they will focus on understanding which traits must necessarily be exhibited to ascribe leadership to individuals in a military context. As discussed, empirically determined leader prototypes have been developed previously (e.g., Lord et al. [5]; Offermann et al. [6]); thus, simply deriving a military prototype from the existing literature is one possibility. However, as noted, it is likely that there exist several elements important to military leadership that are irrelevant to leaders in a business setting. Thus, to ensure all relevant traits and perceptions are included in the development process, a procedure similar to that used by Offermann et al. [6] will be employed.

Study 1

Procedure

Participants will be recruited from relevant informed military populations, with no restriction on rank or tenure. Both males and females will be recruited and if possible, individuals from all ranks should be included in the study. At least 200 participants would be an ideal sample size. Participants will be asked to list all of the traits they believe military leaders exhibit. Based on the methodology of Offermann et al. [6] the list will be compiled and any behaviours and items listed infrequently will be removed, and any synonyms will be combined. The items in this list will then be used to develop a questionnaire to be used in subsequent studies.

Study 2

Procedure

Participants will be recruited from a variety of sources (e.g., university undergraduates, military personnel, civilian personnel).[5] All participants will complete a questionnaire based on the findings of Study 1. Specifically, they will be asked to rate each of the identified traits on a 1- to 7-point Likert scale (not at all characteristic to extremely characteristic). Participants will be asked to identify how characteristic each trait is for military leaders. The collected data will then be analyzed using exploratory factor analysis in an initial effort to determine the factor structure of the traits. Given the nature of the analyses, a large sample (again

[5] A diverse sample may be necessary for practical purposes (i.e., to obtain the required sample size for the analyses) but may also provide an interesting point of comparison. That is, it may be of interest to compare the factor structure of the three groups (i.e., informed military personnel, informed civilians and lay civilians).

approximately 200) would be optimal, although the analysis could be completed with fewer participants if necessary.

Study 3

Procedure

Participants for this study will be recruited from relevant military populations.[6] Again, no restrictions on rank or tenure will be imposed, and, in fact, a diverse sample is desirable. Based on the results of Study 3 another questionnaire will be administered in order to test the factor structure of the data using a more stringent confirmatory factor analysis (CFA). CFA does require a large sample size, although the number of factors identified in Study 2 will guide the sample size for this study. However, some researchers suggest that 5-10 people per variable (item) is optimal. The items identified as fitting the factor structure established in Study 2 will be administered using the same format as above. However, half of participants will rate a officer and half will rate a NCM. Possibly one of the easiest ways to begin to examine leadership using rank is to distinguish between officers and NCMs. Moreover, thinking in terms of gender, there are substantially more female NCMs compared to female officers, thus it may be important for subsequent studies to examine rank in this manner.

The first three studies are all designed to determine exactly the content of the military leader prototype, as well as to assess whether the factor structure will differ for NCMs and officers. The next step in the process of determining how perceivers determine leadership is to follow the procedures outlined by Scott and Brown [10] to determine whether the traits established in the first three studies are encoded differently for male and female leaders.

Study 4: Pilot testing

Procedure

The fourth study will be undertaken in order to begin to examine whether the leadership traits identified thus far will be automatically encoded upon presentation of the trait-implying behaviour. The first step in this next series of studies is to develop and pilot test a series of behavioural sentences that are linked to the identified traits developed in the first three studies. Following Scott and Brown [10], two or three sentences will be developed for each trait deemed consistent with the military leader prototype. Participants will be given a questionnaire and asked to indicate on a 7-point Likert scale (not at all representative – extremely representative) whether each sentence represents the intended trait. The two sentences that are most representative of each trait will be retained. The next step is to ensure that each of the behavioural sentences is deemed consistent with leadership. Participants will be presented with

[6] Again, it may be of interest to include civilians in this sample as well if Study 2 suggests existing differences in the prototype.

each sentence and asked to rate how characteristic each sentence is of military leadership behaviour using a 7-point Likert scale (not at all characteristic – extremely characteristic). Once two sentences have been identified for each trait and (a) are rated as being representative of the intended trait, and (b) are considered indicative of military leadership they will be compiled and used in all future studies.

Study 5: Encoding[7]

As mentioned in the literature review, according to Lord and Maher [7] the first step in the process of recognition-based leader categorization is the encoding of the relevant trait. In an initial study, Scott and Brown [10] determined that perceivers do encode leadership traits when presented with the corresponding behaviour. Thus, the purpose of Study 5 is to ensure that perceivers do encode the traits from the military leader prototype when presented with the corresponding behaviour.

Procedure

Participants will be brought into the lab and asked to complete a lexical decision task. A lexical decision task is a word/non-word decision task whereby participants are presented with a letter string and asked to identify whether they were presented with a word or non-word by pressing the relevant keys on the keyboard. The amount of time that participants take to respond is the dependent variable. Participants will first be presented with one of the leadership sentences identified in Study 4 or a control sentence (the control sentences should be related to the military but not leadership) followed by the corresponding trait word identified in Studies 1 through 3, a control word, or a non-word. Participants should make the fastest response times when presented with the leadership sentence and the corresponding trait word.[8]

Study 6

Procedure

Study 6 will be a replication and extension of Study 5. The procedure outlined in Study 5 will be followed exactly, however participants will receive gender information in this study. Following Scott and Brown [10] participants will read each sentence two times, once with a female name and once with a male name, making a lexical decision after each sentence. As the content of the prototype has not yet been

[7] The content of the prototype may guide the procedure of Study 5 and subsequent studies to some extent. For example, if the military leader prototype is determined to be quite different for NCMs and officers, it may be necessary to create two separate tasks. One would assess the encoding of the NCM prototype and the other the officer prototype.

[8] Depending on the sample used, a computer task may not be the most efficient procedure for this study. If undergraduates are used, the methodology should not be problematic. However, if military personnel are used, it is possible that a computer task may pose some difficulty. That is, it may be difficult for them to come to a laboratory testing session. If this is the case, an alternate procedure may be employed, drawing on the STI literature.

ascertained, it is difficult to make any concrete predictions about reaction time. However, it is plausible to assume that the content of the prototype will be largely agentic. Thus it is expected that participants will have more difficulty making the lexical decision when the leader target is female (compared to male targets).

Discussion

The studies outlined above are intended only as a guideline to begin to examine the role of pre-existing beliefs and biases in perceptions of military leaders. While the basic steps are necessary to continue future work in this area (i.e., developing a leader prototype specific to the military, assessing any evidence of an encoding bias) there are many more options for extending this line of research. For example, once the content of the prototype has been established, it is possible that individual differences may play a role in any evident bias against female leaders. It has been theorized that sexism may play a role in the well-established gender bias in leadership (e.g., Eagly and Karau [61]) and it is plausible to assume that it may moderate the relationship between leader gender and strength of encoding in the studies proposed here (Study 6). Moreover, it is possible to theorize that other individual difference variables may influence the results. For example, authoritarianism likely predicts military enrolment, and may also influence perceptions of female leaders. Specifically, individuals with strong authoritarian beliefs may have difficulty recognizing female behaviour as consistent with leader behaviour more so than individuals who are not strongly authoritarian. Indeed, it is also possible that number of years of service may play a role in perceiving female behaviour as consistent with leader prototypes, a factor that may also be related to both authoritarian and sexist beliefs.

The inclusion of individual difference variables is not the only direction this research could take. As mentioned previously, developing a more concrete understanding of the exact nature of the gender bias in military leadership may aid in the development of training programs for female leaders as well as all military personnel. For example, leadership training could incorporate all of the necessary behaviours that are linked to the traits deemed prototypical so that all current and future officers have some exposure to the expectations of their subordinates.

Finally, also possible is the existence of a difference between different types of military leaders; the behaviours that constitute effective leadership in the army may differ from effective naval leadership, or leadership in the air force. Moreover, it may be the case that the bias against female leaders differs depending on whether the navy, army or air force is being studied, or whether the regular force or the reserves are being studied. Thus, examining the leader prototype and encoding processes in all military branches and not just in general may also serve to inform and potentially improve the functioning of female leaders.

While all of the extensions discussed above will allow for the development of a more concrete understanding of the cognitive processes that guide subordinates' processing of leadership information, the behavioural implications of the information- processing approach to the study of leadership are also worthy of further elaboration. As the content of the military leader prototype is as yet unknown, it is not possible to precisely detail the exact behaviours that leaders may influence. However, it is possible to detail the processes through which leaders

may influence subordinate behaviour. Thus, a theoretical discussion of the process that may mediate leadership perceptions and subsequent subordinate behaviour will be considered, namely the effect that a leader has on the self-concept of the subordinate.

The self-concept

There exist a myriad of possible descriptors that individuals could use to portray themselves if asked. For example, considerate, intelligent, athletic and orderly are just some of the possibilities. The self-concept is best conceived as a relatively stable representation of the self that encompasses beliefs about who we are, our personality and the traits that best represent us, organized into schema [70]. Schemas are formed through experience and serve as organizational structures that guide the processing of self-related information in daily social interaction ([71], p.64). These self-representations can take a variety of forms including current self-views and beliefs about what the self could (ideal) and should (ought) be [70, 72]. Moreover, the self-concept is multifaceted and dynamic, involved in all aspects of social information processing. Specifically, the self-concept serves as a mediator between the environment and behaviour, although the resulting behavioural impact is not always palpable [70].

Of particular interest to the theory being developed in this proposal is the dynamism inherent in the working self-concept. That is, because the working self-concept is only a representation of a particular set of self-conceptions, it is constantly changing in order to regulate behaviour [70]. Specifically, the overwhelming number of self-schema contained in the self-concept make it impossible for all self-knowledge structures to be concurrently accessible. Thus the self-concept regulates the availability of schemas and represents the self-concept at a given point in time; the content may change from situation to situation. However, despite the constant activity of the working self-concept there do exist some structures that are constantly available [70]. That is, some of the ways in which the self is defined are very important to our self-definition; these schemata are stable, continually available, and make up the core self-concept [70]. On the other hand, other schemas are not as important; these aspects of the self are more peripheral or episodic and are only accessible when environmental demands require [73]. Thus the shift in the content of the working self-concept is evident when one set of schemata is available in working memory, compared to an alternate set [70].

Situational factors clearly play an important role in the regulation of the self-concept; a schema that would be activated and used to guide appropriate behaviour regulation in one context may not be suitable for another. For example, an individual's behaviour at a sporting event is likely quite disparate from his or her behaviour in a library. However, more recent discussions of the self recognize the role that significant others play in shaping the content of the self-concept (e.g., Andersen and Chen [74]; Baldwin [75]; Brewer [76]; Brewer and Gardner [77]). The general ideas espoused by these authors in their respective theories suggest that there are components of the self-concept that are tied to or activated by significant others. For example, in his highly cited paper on the relational self, Baldwin [75] has proposed that individuals internalize patterns of behaviour (or schemas) that are representative of behaviour when in the presence of significant others. That is, individuals internalize behavioural scripts for patterns of interaction with others with whom they frequently interact (e.g., doctor-patient; Baldwin [75]). In a recent extension of the notion of the relational self, Andersen and Chen

[74] suggest that each relationship an individual forms becomes linked to the self in a unique way. This linkage then becomes a chronic structure in the self-concept, such that interacting with an individual reminiscent of a significant other may trigger a behaviour pattern similar to what would be activated when interacting with the actual significant other. Extending theoretical perspectives on the influence the environment has on the self-concept, Brewer and her colleagues (e.g., Brewer [76]; Brewer and Gardner [77]) have suggested that the self is actually comprised of three distinct levels, each with a distinct sphere of influence. The personal level is conceived as the individual level self-concept, the relational level is comprised of the self with significant others, and the collective self-concept is a social identity. Thus, it is clear that researchers believe that relationships can have a significant impact on the content of the working self-concept and the manner in which it serves to regulate behaviour.

As an example demonstrating the impact that significant others have on self-views, consider an influential study by Baldwin et al. [78]. In two studies, these researchers subliminally exposed participants to the scowling face of their department chair (Study 1) or the Pope (Study 2). Their results demonstrated that self-views were significantly impacted by the experimental prime. Specifically, participants primed with their department chair (compared to a smiling other) evaluated themselves and their research significantly more negatively. Further, Catholic (compared to non-Catholic) participants exposed to a picture of the Pope (versus a control picture) also evaluated themselves more negatively following exposure to a sexually permissive paragraph. Thus it is clear from these results that others with whom specific feelings are associated are capable of influencing self-views and the content of the working self-concept.

Turning the discussion to that of the leader-subordinate relationship, how can theories of self-concept activation be applied? One of the main foci of leadership researchers is the effect that leader behaviour has on pertinent outcomes such as organizational and, more specifically, subordinate performance; researchers are keenly interested in the role of leadership in influencing subordinate behaviour. However, despite the interest, little is known regarding the exact mechanism through which leaders influence subordinate behaviour. Through an application of self-concept theory, researchers have recently acknowledged the role of the leader in influencing the self-concept of the subordinate (e.g., Lord and Brown [79]; Lord and Brown [11]; Lord et al. [80]; Shamir et al. [81]). Thus, leaders may exert influence through activities designed to make various subordinate self-schema more accessible [80]. Their work suggests that one way leaders exert influence is by activating the relevant structures in a subordinates' self-concept. Stated differently, effective leaders are able to bring the relevant self-structures into the working self-concept of the subordinate, thus bringing about the desired behaviour.

In an extensive integration of the pertinent literatures, Lord and Brown [11] suggest that one of the key abilities differentiating effective leaders is the extent to which they prime the relevant aspects of the subordinate self-concept. This implies that the extent to which leaders can exact the desired performance from their subordinates is dependent on how strongly they activate the relevant self-views in the working self-concept. The authors suggest that there are several ways in which/tools a leader can use to bring to mind the relevant schema in the self-concept of the subordinate. For example, through verbal and non-verbal cues, leaders are able to communicate meaning to their subordinates through use of different speech patterns;

leaders may be able to activate different self-views [11]. Brewer and Gardner [77] suggest that the use of different pronouns can influence whether individuals activate an individual or collective level identity. Thus it is possible that leaders can play a role in the extent to which a given self-view is most salient.

The process through which leaders are able to activate subordinates' self-concepts and influence performance is not an isolated activity. Rather there are important subordinate processes that also factor into the influence process. For example, subordinate perceptions are very important; subordinates must perceive leadership [11]. That is, if the behaviours enacted by the leader do not match the leader prototype of the perceiver it is unlikely the subordinate will categorize the demonstrated behaviours as 'leader-like,' in turn affecting the ability of the leader to activate the working self-concept of the subordinate [11]. Another important consideration is the self-view desired by the leader. As discussed above, individuals differ in terms of the salience of various schema; some are core self-views while others are more peripheral. For example, extroversion may be a core component and creativity may be a peripheral component of the self-concept for one individual, while the reverse may be true for another individual. If a leader is trying to engage subordinates in a task that requires much creativity, it will be easier to activate self-views related to creativity in subordinates for whom creativity is a core component of the self-concept. That is, the effects of leaders will be stronger when the desired behaviour matches salient aspects of the working self-concept of the subordinate [11].

It is quite easy to speculate that there do exist distinct behaviours that are related to and necessary for effective military functioning. In fact, it is also plausible to assume that many who join the military do so because their self-views are consistent with military ethos. In fact, that is likely true for many organizations and many jobs; individuals likely choose occupations because the tasks required or the values necessary for effective performance are important to them; they are a core component of the self-concept. Yet, in spite of this, not everyone performs to the best of their ability all of the time, despite the relevant knowledge being a component of the self-concept. Thus, having a leader who is able to actively change the subset of behaviours contained in the working self-concept, enabling superior performance, would be a benefit to the organization. However, two questions remain. Does the category 'leader' actually promote change in the working self-concept, and what are the contextual boundaries that are necessary for this change to occur?

Recent work by Brown, Scott, and colleagues has determined that priming the category 'leader' does in fact activate motivational structures in the working self-concept, and that leader gender plays an important role in this process. Specifically, using a scrambled sentence task, they determined that participants exposed to the category 'leader' actually reported that conscientious behaviours were an important component of their current self-view. Moreover, a second study determined that participants exposed to the category 'leader' spent more time on an impossible task (compared to participants exposed to a neutral prime; Brown and Scott [82]). Thus their results demonstrated that activating the mental category of 'leader' through use of elements of the leader prototype does in fact activate relevant components of the working self-concept and exact behaviour in accord with the current self-view.

Further, recalling the earlier discussion of research conducted by Scott and Brown [10], their results demonstrated that participants persisted longer at a difficult task when exposed to the

agentic behaviours of a male compared to a female. These researchers have theorized that the self-concept may be the mechanism through which these results operate. That is, it is possible that by virtue of the conflicting information presented to participants exposed to the female (i.e., gender role stereotypes conflict with leader behaviours), the female leader may have less of an impact on the working self-concept of the subordinate; a female leader may have difficulty activating the relevant schema in the working self-concept of the subordinate if the schema being activated are perceived as incompatible with female gender role stereotypes. Future work will attempt to determine the exact mechanism responsible for these findings.

Summary and conclusions

The academic literature has established the existence of leader prototypes or implicit leadership theories and the impact that they have on subordinates' perceptions of leaders. However, a prototype specific to the military has yet to be fully developed. This proposal is aimed at understanding the traits subordinates deem necessary for effective leadership and at developing a prototype specific to military leadership. Further, along with the content of the prototype, also important is determining how the prototype may differ for different levels of military leadership. Future research may focus on any differences evident in the different elements of the military (air, land, sea), in addition to the proposed differences between officers and NCMs. Moreover, a secondary purpose of this proposal is to assess whether perceivers will recognize elements of the developed prototype in both male and female leaders.

Together, the literature reviewed here, along with the proposed studies, centre on furthering understanding about the expectations that subordinates have regarding leader behaviour. This may have important implications for military functioning especially at a time when military personnel are being required to enter situations for which their training may not be wholly adequate. If it is possible to understand the traits and behaviours subordinates consider important for leaders to display in order to function effectively, it may be feasible to integrate some of these behaviours into training sessions and course work, recognizing that different styles will not work for all individual leaders. However, exposing leaders to these expectations may allow them to make some behavioural changes and improve overall unit functioning. Moreover, including an emphasis on gender offers a means through which it may be possible to address some of the issues surrounding gender integration in the Canadian Forces. If gender integration is to be effective it may be important to clarify subordinate expectations regarding their leaders, so that female leaders are better prepared to understand what their subordinates expect in terms of leadership.

Overall, the purpose of this review and proposal is to suggest a different perspective with which to examine military leadership. The dynamic nature of the leader-follower relationship is such that understanding the expectations of both individuals in the relationship is imperative for effective functioning. Thus, although the research proposed here is simply an initial investigation, through extension and application it may further our understanding of how military leaders may function effectively.

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14. ABSTRACT

(U) Leadership is key to the successful functioning of any organization, including the military. Contemporary conceptualizations of leadership have focused on the behaviours or traits necessary for leaders to function effectively. However, leadership is a dynamic process involving both a leader and a follower. Thus, recent theories have taken an information-processing approach to the study of leadership, centring on the perspective of the subordinate. One basic tenet of this approach is that perceivers hold an implicit theory or prototype of leadership; before ascribing leadership, subordinates look to congruence between their beliefs regarding the traits or behaviours that constitute effective leadership and the actual behaviour of an individual. Integrating literature on the encoding process, stereotyping, and gender and leadership with the information-processing approach to leadership, this proposal reviews some key theoretical perspectives and outlines a program of research designed to assess perceptions of military leadership from a subordinate point of view. Also discussed is how these perceptions may differ for male and female leaders as well as leaders of different rank (i.e., officers and non-commisioned members [NCMs]).

(U) Le leadership est essentiel au bon fonctionnement de toute organisation, y compris les organisations militaires. Les principes contemporains de conceptualisation du leadership se sont toujours axés sur la détermination des comportements ou des traits nécessaires à un leader efficace. Toutefois, le leadership constitue un processus dynamique auquel participent à la fois le leader et le subordonné. Des théories récemment avancées ont misé sur le traitement de l'information pour étudier le concept du leadership, en se concentrant sur la perspective du subordonné. Un des principes de base de cette approche est que les percepteurs cautionnent implicitement une théorie ou un modèle de leadership. En fait, les subordonnés cherchent à établir une concordance entre leur opinion sur ce qui constitue les traits ou les comportements d'un leader efficace et le comportement réel d'une personne avant d'imputer le leadership. En intégrant des documents sur le processus d'encodage, les stéréotypes, la question homme-femme et le leadership dans cette approche axée sur le traitement de l'information, la présente proposition passe en revue quelques-unes des principales perspectives théoriques et trace les grandes lignes d'un programme de recherche conçu pour évaluer les perceptions des subordonnés en matière de leadership militaire. Il est aussi question de la façon dont ces perceptions diffèrent selon le grade du leader ou s'il s'agit d'un homme ou d'une femme (officiers et militaires du rang [MR]).

15. KEYWORDS, DESCRIPTORS or IDENTIFIERS

(U) gender and leadership; leadership prototypes; follower-centred approach to leadership